Seung Ki Moon

List of Publications by Year
in descending order

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133	2,833	201385	205818
papers	citations	27 h-index	48 g-index

136	136	136	2699
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Strength and strain hardening of a selective laser melted AlSi10Mg alloy. Scripta Materialia, 2017, 141, 45-49.	2.6	312
2	Application of 3D printing technology for designing light-weight unmanned aerial vehicle wing structures. International Journal of Precision Engineering and Manufacturing - Green Technology, 2014, 1, 223-228.	2.7	199
3	Process monitoring and inspection systems in metal additive manufacturing: Status and applications. International Journal of Precision Engineering and Manufacturing - Green Technology, 2017, 4, 235-245.	2.7	145
4	A hybrid machine learning approach for additive manufacturing design feature recommendation. Rapid Prototyping Journal, 2017, 23, 983-997.	1.6	95
5	Numerical and experimental study of laser aided additive manufacturing for melt-pool profile and grain orientation analysis. Materials and Design, 2018, 137, 286-297.	3.3	95
6	Global Views on Modular Design Research: Linking Alternative Methods to Support Modular Product Family Concept Development. Journal of Mechanical Design, Transactions of the ASME, 2016, 138, .	1.7	94
7	Design for additive manufacturing in customized products. International Journal of Precision Engineering and Manufacturing, 2015, 16, 2369-2375.	1.1	86
8	Additive manufacturing for space: status and promises. International Journal of Advanced Manufacturing Technology, 2019, 105, 4123-4146.	1.5	79
9	Rapid surface defect identification for additive manufacturing with in-situ point cloud processing and machine learning. Virtual and Physical Prototyping, 2021, 16, 50-67.	5.3	78
10	A module-based service model for mass customization: service family design. IIE Transactions, 2010, 43, 153-163.	2.1	70
11	Sustainable platform identification for product family design. Journal of Cleaner Production, 2017, 143, 567-581.	4.6	60
12	3D Printed Electronics of Non-contact Ink Writing Techniques: Status and Promise. International Journal of Precision Engineering and Manufacturing - Green Technology, 2020, 7, 511-524.	2.7	53
13	Effects of heat treatment on microstructures and tensile properties of IN718/TiC nanocomposite fabricated by selective laser melting. International Journal of Precision Engineering and Manufacturing, 2017, 18, 1693-1701.	1.1	51
14	Platform design variable identification for a product family using multi-objective particle swarm optimization. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2014, 25, 95-108.	1.2	49
15	Femtosecond Laser Produced Hydrophobic Hierarchical Structures on Additive Manufacturing Parts. Nanomaterials, 2018, 8, 601.	1.9	48
16	A Decision Support System for market-driven product positioning and design. Decision Support Systems, 2015, 69, 82-91.	3.5	47
17	Hybrid Machine Learning Method to Determine the Optimal Operating Process Window in Aerosol Jet 3D Printing. ACS Applied Materials & Interfaces, 2019, 11, 17994-18003.	4.0	45
18	Service representation for capturing and reusing design knowledge in product and service families using object-oriented concepts and an ontology. Journal of Engineering Design, 2009, 20, 413-431.	1.1	38

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19	The M/M/1 queue with a production-inventory system and lost sales. Applied Mathematics and Computation, 2014, 233, 534-544.	1.4	37
20	An agent-based recommender system for developing customized families of products. Journal of Intelligent Manufacturing, 2009, 20, 649-659.	4.4	35
21	Comparison of carbon-based reinforcement on laser aided additive manufacturing Inconel 625 composites. Applied Surface Science, 2019, 490, 522-534.	3.1	35
22	Eco-modular product architecture identification and assessment for product recovery. Journal of Intelligent Manufacturing, 2019, 30, 383-403.	4.4	34
23	A Dynamic Multiagent System Based on a Negotiation Mechanism for Product Family Design. IEEE Transactions on Automation Science and Engineering, 2008, 5, 234-244.	3.4	31
24	A methodology for knowledge discovery to support product family design. Annals of Operations Research, 2010, 174, 201-218.	2.6	30
25	Data Mining and Fuzzy Clustering to Support Product Family Design. , 2006, , 317.		29
26	A Cost-Driven Design Methodology for Additive Manufactured Variable Platforms in Product Families. Journal of Mechanical Design, Transactions of the ASME, 2016, 138, .	1.7	29
27	Grasp and index finger reach zone during one-handed smartphone rear interaction: effects of task type, phone width and hand length. Ergonomics, 2016, 59, 1462-1472.	1.1	29
28	Multidisciplinary design optimization to identify additive manufacturing resources in customized product development. Journal of Computational Design and Engineering, 2017, 4, 131-142.	1.5	29
29	A hybrid multi-objective optimization of aerosol jet printing process via response surface methodology. Additive Manufacturing, 2020, 33, 101096.	1.7	29
30	A Part Consolidation Design Method for Additive Manufacturing based on Product Disassembly Complexity. Applied Sciences (Switzerland), 2020, 10, 1100.	1.3	28
31	Reviews on Machine Learning Approaches for Process Optimization in Noncontact Direct Ink Writing. ACS Applied Materials & Interfaces, 2021, 13, 53323-53345.	4.0	27
32	3D printing as an efficient way for comparative study of biomimetic structures â€" trabecular bone and honeycomb. Journal of Mechanical Science and Technology, 2014, 28, 4635-4640.	0.7	26
33	A productionâ€"inventory system with a Markovian service queue and lost sales. Journal of the Korean Statistical Society, 2016, 45, 14-24.	0.3	26
34	A Market-Based Design Strategy for a Universal Product Family. Journal of Mechanical Design, Transactions of the ASME, 2012, 134, .	1.7	25
35	Influence of substrate heating on hole geometry and spatter area in femtosecond laser drilling of silicon. Applied Physics Letters, 2014, 104, .	1.5	24
36	A multi-material part design framework in additive manufacturing. International Journal of Advanced Manufacturing Technology, 2018, 99, 2111-2119.	1.5	24

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37	Laser-Induced Graphene on Additive Manufacturing Parts. Nanomaterials, 2019, 9, 90.	1.9	24
38	Sustainable product family configuration based on a platform strategy. Journal of Engineering Design, 2017, 28, 731-764.	1.1	23
39	Artificial intelligence for the prediction of tensile properties by using microstructural parameters in high strength steels. Materialia, 2020, 11, 100699.	1.3	22
40	An additive manufacturing process model for product family design. Journal of Engineering Design, 2016, 27, 751-767.	1.1	21
41	Numerical study of temperature and cooling rate in selective laser melting with functionally graded support structures. Additive Manufacturing, 2018, 24, 543-551.	1.7	20
42	Characterization of wear properties of the functionally graded material deposited on cast iron by laser-aided additive manufacturing. International Journal of Advanced Manufacturing Technology, 2019, 105, 4097-4105.	1.5	20
43	Comparison Study on Additive Manufacturing (AM) and Powder Metallurgy (PM) AlSi10Mg Alloys. Jom, 2018, 70, 644-649.	0.9	19
44	Data-driven design strategy in fused filament fabrication: status and opportunities. Journal of Computational Design and Engineering, 2021, 8, 489-509.	1.5	19
45	Impact of Modularity Decisions on a Firmâ€™s Economic Objectives. Journal of Mechanical Design, Transactions of the ASME, 2020, 142, .	1.7	19
46	In-process adaptive dimension correction strategy for laser aided additive manufacturing using laser line scanning. Journal of Materials Processing Technology, 2022, 303, 117544.	3.1	19
47	Design knowledge representation to support personalised additive manufacturing. Virtual and Physical Prototyping, 2015, 10, 217-226.	5.3	18
48	A heterostructure of layered double hydroxide wrapped in few-layer carbon with iridium doping for efficient oxygen evolution. Electrochimica Acta, 2019, 296, 590-597.	2.6	16
49	The Effect of Annealing on Additive Manufactured ULTEMâ„¢ 9085 Mechanical Properties. Materials, 2021, 14, 2907.	1.3	16
50	Characteristic length of the solidified melt pool in selective laser melting process. Rapid Prototyping Journal, 2017, 23, 370-381.	1.6	15
51	A knowledge transfer framework to support rapid process modeling in aerosol jet printing. Advanced Engineering Informatics, 2021, 48, 101264.	4.0	15
52	Service reliability improvement in manufacturing and operating systems. International Journal of Precision Engineering and Manufacturing, 2013, 14, 1401-1406.	1.1	14
53	Effects of weight balance on a 3D TV shutter type glasses: Subjective discomfort and physical contact load on the nose. International Journal of Industrial Ergonomics, 2014, 44, 801-809.	1.5	14
54	Halideâ€ionâ€Assisted Synthesis of Different Î±â€Fe₂O₃ Hollow Structures and Their Lithiumâ€ion Storage Properties. ChemPlusChem, 2015, 80, 522-528.	1.3	14

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55	Orientation Measurement Based on Magnetic Inductance by the Extended Distributed Multi-Pole Model. Sensors, 2014, 14, 11504-11521.	2.1	13
56	Effect of geometry on the mechanical response of additively manufactured polymer. Polymer Testing, 2021, 100, 107245.	2.3	13
57	A Customized Smart Medical Mask For Healthcare Personnel. , 2020, , .		13
58	Data-Driven Adaptive Control for Laser-Based Additive Manufacturing with Automatic Controller Tuning. Applied Sciences (Switzerland), 2020, 10, 7967.	1.3	12
59	Voice Coil Navigation Sensor for Flexible Silicone Intubation. IEEE/ASME Transactions on Mechatronics, 2016, 21, 851-859.	3.7	11
60	Rapid Process Modeling of the Aerosol Jet Printing Based on Gaussian Process Regression with Latin Hypercube Sampling. International Journal of Precision Engineering and Manufacturing, 2020, 21, 127-136.	1.1	11
61	Embedding sensors using selective laser melting for self-cognitive metal parts. Additive Manufacturing, 2020, 33, 101151.	1.7	11
62	Glasses-type wearable computer displays: usability considerations examined with a 3D glasses case study. Ergonomics, 2018, 61, 670-681.	1.1	10
63	A Multi-Agent System for Modular Platform Design in a Dynamic Electronic Market Environment. , 2006, , .		10
64	Three Dimensional Design Structure Matrix With Cross-Module and Cross-Interface Analyses. , 2007, , 941.		9
65	A multi-objective optimization framework for aerosol jet customized line width printing via small data set and prediction uncertainty. Journal of Materials Processing Technology, 2020, 285, 116779.	3.1	9
66	Surface Monitoring for Additive Manufacturing with in-situ Point Cloud Processing. , 2020, , .		9
67	Representing User Activity and Product Function for Universal Design. , 2009, , .		8
68	Geometric influence of the laser-based powder bed fusion process in Ti6AL4V and AlSi10Mg. International Journal of Advanced Manufacturing Technology, 2021, 114, 3165-3176.	1.5	8
69	Hybrid Decision Support to Monitor Atrial Fibrillation for Stroke Prevention. International Journal of Environmental Research and Public Health, 2021, 18, 813.	1.2	8
70	A New Approach for Product Design by Integrating Assembly and Disassembly Sequence Structure Planning. Proceedings in Adaptation, Learning and Optimization, 2015, , 247-257.	1.5	8
71	Knowledge representation for product design using techspecs concept ontology. , 0, , .		7
72	Considering Context: The Role of Mental Workload and Operator Control in Users' Perceptions of Usability. International Journal of Human-Computer Interaction, 2012, 28, 543-559.	3.3	7

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73	A mechanistic cutting force model with consideration of the intrinsic and geometric size effects decoupled. International Journal of Advanced Manufacturing Technology, 2015, 81, 745-753.	1.5	7
74	Hybrid layering scanning-projection micro-stereolithography for fabrication of conical microlens array and hollow microneedle array. Microelectronic Engineering, 2016, 153, 15-19.	1.1	7
75	Decentralized determination of design variables among cooperative designers for product platform design in a product family. Computers and Industrial Engineering, 2019, 135, 601-614.	3.4	7
76	A platform-based strategic design approach for universal products. International Journal of Mass Customisation, 2010, 3, 227.	1.2	6
77	Estimation of Singaporeâ€™s hourly solar radiation using hybrid-Markov transition matrices method. International Journal of Precision Engineering and Manufacturing, 2013, 14, 323-327.	1.1	6
78	A time-dependent busy period queue length formula for the queue. Statistics and Probability Letters, 2014, 87, 98-104.	0.4	6
79	Polymer-assisted formation of 3D Pd nanoassemblies: highly active catalysts for formic acid electrooxidation. Sustainable Energy and Fuels, 2017, 1, 450-457.	2.5	6
80	Hole design quality identification in laser aided additive manufacturing. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2018, 232, 909-917.	1.5	6
81	A Design Method for Developing a Universal Product Family in a Dynamic Market Environment. , 2009, , .		5
82	Universal Product Family Design Valuation in an Uncertain Market Environment. , 2010, , .		5
83	Determination of Optimal Grip Span between a Bicycle Handlebar and a Brake Lever by Using a Two-Dimensional Biomechanical Hand Model. Proceedings of the Human Factors and Ergonomics Society, 2011, 55, 1635-1639.	0.2	5
84	A method for platform identification to support service family design. International Journal of Services Operations and Informatics, 2008, 3, 294.	0.2	4
85	A Strategic Module-Based Platform Design Method for Developing Customized Products in Dynamic and Uncertain Market Environments. , 2008, , .		4
86	Platform Strategy for Product Family Design Using Particle Swarm Optimization. , 2011, , .		4
87	Change propagation analysis for sustainability in product design. , 2013, , .		4
88	Effects of the TiC Nanoparticle on Microstructures and Tensile Properties of Selective Laser Melted IN718/TiC Nanocomposites. IOP Conference Series: Materials Science and Engineering, 2018, 317, 012074.	0.3	4
89	How to Use the Levers of Modularity Properlyâ€"Linking Modularization to Economic Targets. Journal of Mechanical Design, Transactions of the ASME, 2022, 144, .	1.7	4
90	Inflatable wing design for micro UAVs using indirect 3D printing. , 2014, , .		3

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91	Decision Support Systems Design for Data-Driven Management. , 2014, , .		3
92	Modeling and observation of compressive behaviors of closed celullar structures using central Voronoi tessellation concepts. International Journal of Precision Engineering and Manufacturing, 2015, 16, 2459-2465.	1.1	3
93	A disassmbly complexity assessment method for sustainable product design. , 2016, , .		3
94	An efficient way of investigating the intrinsic size effect in machining. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2016, 230, 1622-1629.	1.5	3
95	Commonality and performance metrics to evaluate and optimise the design of additive manufactured product families. International Journal of Manufacturing Research, 2017, 12, 44.	0.1	3
96	A hybrid machine learning approach for the quality optimization of a 3D printed sensor. , 2018, , .		3
97	A Post-Treatment Method to Enhance the Property of Aerosol Jet Printed Electric Circuit on 3D Printed Substrate. Materials, 2020, 13, 5602.	1.3	3
98	Reverse effect of hot isostatic pressing on high-speed selective laser melted Tiâ€“6Alâ€“4V alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 807, 140880.	2.6	3
99	Modelling the stiffness of plastic springs manufactured via additive manufacturing. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2022, 236, 486-497.	1.5	3
100	Strategic Module Sharing for Customized Service Family Design using a Bayesian Game. , 2007, , .		2
101	Design and Assessment of Ergonomics of Hand-Powered Pruning Shears Based On Gender-Specific Operating Strategy. Proceedings of the Human Factors and Ergonomics Society, 2011, 55, 1671-1675.	0.2	2
102	Effects of Mental Workload and Operator Control on Perceived Usability. Proceedings of the Human Factors and Ergonomics Society, 2011, 55, 1200-1204.	0.2	2
103	Determination of Optimal Location of Circuit Board and Battery on 3D Glasses by Considering Nose Load and Subjective Discomfort. Proceedings of the Human Factors and Ergonomics Society, 2012, 56, 1877-1881.	0.2	2
104	An Efficient Branch-and-Bound Algorithm for Interface-Based Modular Product Design and Performance Evaluation. Journal of Computing and Information Science in Engineering, 2013, 13, .	1.7	2
105	A Formal Model of Human Interactions for Service Ecosystem Design. , 2014, , .		2
106	A framework to identify sustainability indicators for product design. , 2014, , .		2
107	Intentional and Unintentional Medication Nonadherence â€“ Comparing Older and Younger Adults. Proceedings of the Human Factors and Ergonomics Society, 2014, 58, 160-164.	0.2	2
108	Contrasting Function With Affordance in Design for Additive Manufacturing. , 2017, , .		2

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109	Advanced aircraft manufacturing and maintenance using three-dimensional printing. International Journal of Advanced Manufacturing Technology, 2019, 105, 4055-4057.	1.5	2
110	Guidelines for 3D printed springs using material extrusion. Rapid Prototyping Journal, 2022, 28, 409-427.	1.6	2
111	Customization Design Knowledge Representation to Support Additive Manufacturing. , 2014, , .		2
112	Laser powder bed fusion for AI assisted digital metal components. Virtual and Physical Prototyping, 2022, 17, 806-820.	5.3	2
113	A Process Model and Data Mining to Support Designing Families of Services. , 2007, , .		1
114	A Product-Service System Design Framework Based on a Business Ecosystem. , 2012, , .		1
115	A Product-Service System Model for Identifying Design Factors. , 2013, , .		1
116	An Additive Manufacturing resource process model for product family design. , 2013, , .		1
117	Flexible membrane wing warping using tendon-sheath mechanism. , 2015, , .		1
118	An integration of function- and affordance-based methods for product-service system utilizing finite state automata. , 2016, , .		1
119	An Integrated Two-Stage Optimization Method for Job-Shop Bottleneck Planning and Scheduling. , 2019, , .		1
120	Aerosol Jet Printed Temperature Sensor for Wireless Healthcare Monitoring. , 2021, , 663-674.		1
121	A data-driven framework to predict fused filament fabrication part properties using surrogate models and multi-objective optimisation. International Journal of Advanced Manufacturing Technology, 2022, 120, 8275-8291.	1.5	1
122	A Strategic Platform Design Method for Developing Customized Families of Services. , 2009, , .		0
123	Platform Valuation for Product Family Design in an Uncertain Market Environment. , 2010, , .		0
124	Voice coil navigation sensor for endoscopic silicone intubation. , 2014, , .		0
125	Assessing and Generating Modules for Product Recovery. , 2015, , .		0
126	The Additive Manufacturing Process Setting Feasible Space Exploration and Association With Variable Product Platform Design. , 2015, , .		0

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127	Finite Element Method and Parametric Study on Material Properties and Friction Coefficients for Design of Mechanical Components. , 2018, , .		0
128	PhD Research Learning in Product Architecture Design. Proceedings of the Design Society International Conference on Engineering Design, 2019, 1, 549-558.	0.6	0
129	A Multi-Agent System for Recommending Customized Families of Products. , 2010, , 35-48.		0
130	Indirect 3D Printing of an Inflatable Wing for Small UAVS Reinforced with 3D Hexagonal Diamond Structures. , 2014, , .		0
131	Working Principles of 3D Xerography. , 2014, , .		0
132	Design and Manufacture of a Plastic Drone Using Finite Element Analysis and Fused Deposition Modeling Process. Transactions of the Korean Society of Mechanical Engineers, A, 2019, 43, 787-795.	0.1	0
133	Multi-Objective Implementation of Additive Manufacturing in Make-to-Stock Production. , 2020, , .		0